

[4910-13-P]

### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

14 CFR Part 39

[Docket No. FAA-2013-0866; Directorate Identifier 2013-NM-131-AD]

**RIN 2120-AA64** 

Airworthiness Directives; The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This proposed AD was prompted by reports of cracks found in the aft support fitting, the rear spar upper chord, and the rear spar web. This proposed AD would require repetitive inspections for cracking of the aft support fitting for the main landing gear (MLG) beam, and the rear spar upper chord and rear spar web in the area of rear spar station (RSS) 224.14; and repair if necessary. We are proposing this AD to detect and correct such cracks, which could grow and result in a fuel leak and possible fire.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <a href="http://www.regulations.gov">http://www.regulations.gov</a>. Follow the instructions for submitting comments.
  - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <a href="https://www.myboeingfleet.com">https://www.myboeingfleet.com</a>. You may review copies of the referenced service information at the FAA, at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <a href="http://www.regulations.gov">http://www.regulations.gov</a>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: nancy.marsh@faa.gov.

### **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section.

Include "Docket No. FAA-2013-0866; Directorate Identifier 2013-NM-131-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory,

economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <a href="http://www.regulations.gov">http://www.regulations.gov</a>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### Discussion

We have received five reports of cracks found in the aft support fitting for the MLG beam, and the rear spar upper chord and rear spar web in the area of rear spar station (RSS) 224.14. One report was of a vertical crack found in the rear spar web, along with cracks in the aft support fitting and rear spar upper chord. A second report indicated cracks found in two holes in the rear spar upper chord and rear spar web. A third report was of a crack in the rear spar upper chord that extended downward to the edge of the vertical flange and upward to the horizontal flange. The affected airplanes had accumulated between 42,988 and 66,572 total flight hours, and between 29,015 and 60,238 total flight cycles. Analysis shows that cracks in the aft support fitting, rear spar web, and rear spar upper chord are caused by operating load fatigue. Such cracks, if not corrected, could grow and result in a fuel leak and possible fire.

## Related Rulemaking

AD 2005-18-08, Amendment 39-14248 (70 FR 52899, September 6, 2005) ("AD 2005-18-08"), affects certain Model 737-100, -200, -200C, and -300 series airplanes. AD 2005-18-08 requires – as one of two options for corrective action – replacement of the support fitting of the MLG beam in accordance with Boeing Special Attention Service Bulletin 737-57-1216. This replacement also terminates the inspections

required by AD 2005-18-08. The compliance times for certain inspections specified in this proposed AD depend on accomplishment of that optional action in AD 2005-18-08.

### **Relevant Service Information**

We reviewed Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013. For information on the procedures and compliance times, see this service information at <a href="http://www.regulations.gov">http://www.regulations.gov</a> by searching for Docket No. FAA-2013-0866.

### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## **Proposed AD Requirements**

This proposed AD would require accomplishing the actions specified in the service information identified previously, except as discussed below.

### Differences Between the Proposed AD and the Service Information

Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, specifies to contact the manufacturer for instructions on how to inspect certain airplanes, and how to repair cracks detected on all airplanes, but this proposed AD would require that those actions be done in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

# **Costs of Compliance**

We estimate that this proposed AD affects 353 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	Up to 86 work-hours X \$85 per hour = \$7,310 per inspection cycle	\$0	Up to \$7,310 per inspection cycle	Up to \$2,580,430 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

# **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
  - (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

# § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company**: Docket No. FAA-2013-0866; Directorate Identifier 2013-NM-131-AD.

### (a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

### (b) Affected ADs

None.

## (c) Applicability

This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

## (d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

# (e) Unsafe Condition

This AD was prompted by reports of cracks found in the aft support fitting for the main landing gear (MLG) beam, and the rear spar upper chord and rear spar web. We are issuing this AD to detect and correct such cracks, which could grow and result in a fuel leak and possible fire.

## (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

# (g) Inspections: Group 1

For airplanes identified in Group 1 of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013: At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, except as required by paragraph (i) of this AD, do inspections and applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

## (h) Inspection: Groups 2-7

For airplanes identified in Groups 2 through 7 of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013: At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, except as required by paragraph (i) of this AD, do high frequency eddy current inspections to detect cracking of the aft support fitting for the MLG beam, and the rear spar upper chord and rear spar web in the area of rear spar station 224.14, as applicable, in accordance with Option 1, 2, or 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013.

- (1) If no crack is found, repeat the inspection thereafter at the time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, as applicable. Accomplishment of the inspection of the 12 fastener holes (locations 1–12) in accordance with Option 2, Action 3; or Option 3, Action 3; as specified in note (b) of tables 2 through 5 of paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, terminates only the corresponding inspections that include note (b) in the "Repeat Interval" column of the applicable table.
- (2) If any crack is found during any inspection required by this paragraph, repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

### (i) Exception to Service Information Specifications

Where Boeing Special Attention Service Bulletin 737-57-1318, dated May 15, 2013, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

## (j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the

Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- (3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA), which has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

## (k) Related Information

- (1) For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: nancy.marsh@faa.gov.
- (2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <a href="https://www.myboeingfleet.com">https://www.myboeingfleet.com</a>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton,

Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on October 17, 2013.

Jeffrey E. Duven, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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